

Applicant : Xiaobin Zhao
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Filed : August 2, 2001
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Attorney's Docket No.: 09736-264001

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1-4. (Cancelled)

5. (Currently Amended) A process for the preparation of multiple cross-linked hyaluronic acid (HA), which process comprises covalently cross-linking HA via two or more different functional groups, wherein said cross-linking is effected by contacting HA with one or more chemical cross-linking agents so as to form two or more different types of functional bonds between HA molecules, wherein said two or more different types of functional bonds are selected from the group consisting of ether, ester, sulfone, amine, imino, and amide bonds, and A process according to claim 1 wherein at least one function bond is an ether bond [[is]] formed using a crosslinking agent selected from the group consisting of bis epoxides and poly epoxides under alkaline conditions.

6. (Currently Amended) A process for the preparation of multiple cross-linked hyaluronic acid (HA), which process comprises covalently cross-linking HA via two or more different functional groups, wherein said cross-linking is effected by contacting HA with one or more chemical cross-linking agents so as to form two or more different types of functional bonds between HA molecules, wherein said two or more different types of functional bonds are selected from the group consisting of ether, ester, sulfone, amine, imino, and amide bonds, and A process according to claim 1 wherein at least one function bond is an ester bond [[is]] formed using a crosslinking agent selected from the group consisting of bis epoxides and poly epoxides under acidic conditions.

7. (Previously Presented) A process according to claim 5 wherein the crosslinker is selected from the group consisting of 1,2,3,4-diepoxybutane and 1,2,7,8-diepoxyoctane.

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8. (Currently Amended) A process for the preparation of multiple cross-linked hyaluronic acid (HA), which process comprises covalently cross-linking HA via two or more different functional groups, wherein said cross-linking is effected by contacting HA with one or more chemical cross-linking agents so as to form two or more different types of functional bonds between HA molecules, wherein said two or more different types of functional bonds are selected from the group consisting of ether, ester, sulfone, amine, imino, and amide bonds, and A process according to claim 1 wherein an ether bond is formed using a gluteraldehyde cross-linking agent under acidic conditions.

9-10. (Cancelled)

11. (Currently Amended) A process for the preparation of multiple cross-linked hyaluronic acid (HA), which process comprises covalently cross-linking HA via two or more different functional groups, wherein said cross-linking is effected by contacting HA with one or more chemical cross-linking agents so as to form two or more different types of functional bonds between HA molecules, wherein said two or more different types of functional bonds are selected from the group consisting of ether, ester, sulfone, amine, imino, and amide bonds, wherein the crosslinking of each type of functional group is effected sequentially, and A process according to claim 9 wherein HA is first cross-linked via the hydroxyl groups by formation of ether bonds and subsequently cross-linked via the carboxyl groups by formation of ester bonds.

12-36. (Canceled)